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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/678,026 | 09/30/2003 | Kjetil Johannessen | 42P13378D | 9943 |

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| EXAMINER | |
| HOFFMANN, JOHN M | |
| ART UNIT | PAPER NUMBER |

1731

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/678,026

Applicant(s)

JOHANNESSEN, KJETIL

Examiner

John Hoffmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-33 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 22-33 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 22 – 25, 29 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Hogg 5237630.

The invention is disclosed in the paragraph spanning cols. 7-8 of Hogg. See also Figure 8: b) shows the mask that was applied to the waveguide. C) and/or d) show the ablating step: the beam is “high-energy” because it was high enough energy to effect the photoresist. It is noted that the term “high-energy” is not limited by the specification/claims/prior art so as to exclude the such an interpretation; the Office gives claims their broadest reasonable interpretation consistent with the disclosure and prior art. The filling step is shown at figure e). As to the dot being a “self-alignment dot” it is deemed that such is an intended use of the dot which does not define over Hogg.

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The term "ablating" is not defined in the present specification. Examiner's dictionary has the definition for "ablate": to remove esp. by cutting, abrading, or evaporating. Examiner presumes that it would be improper to interpret "ablating" as limited to cutting, abrading or evaporating. For these reasons, it is deemed that the broadest reasonable interpretation for "ablate" in the present claims is: to remove.

The PTO gives a disputed claim term its broadest reasonable interpretation during patent prosecution. Hyatt, 211 F.3d at 1372. The "broadest reasonable interpretation" rule recognizes that "before a patent is granted the claims are readily amended as part of the examination process." Burlington Indus. v. Quigg, 822 F.2d 1581, 1583 (Fed. Cir. 1987). Thus, a patent applicant has the opportunity and responsibility to remove any ambiguity in claim term meaning by amending the application. In re Prater, 415 F.2d 1393, 1404-05 (CCPA 1969). Additionally, the broadest reasonable interpretation rule "serves the public interest by reducing the possibility that claims, finally allowed, will be given broader scope than is justified." In re Am. Acad. of Sci. Tech. Ctr., 367 F.3d 1359, 1364 (Fed. Cir. 2004) (quoting In re Yamamoto, 740 F.2d 1569, 1571-72 (Fed. Cir. 1984)).

Claim 23: see figure 8 f)

Claim 24: it is noted that the specification does not define the term "ablating light". It is deemed that the broadest reasonable interpretation of the claims is any light that is used in an ablating step is an ablating light. See the case law cited above.

Claim 25: See the last full sentence of col. 7 of Hogg. The term "optical probe" is not described or defined. IT is deemed that whatever source of light is used to provide the Hogg light can be considered to be an "optical probe". If Applicant disagrees,

Applicant is require to point out what is meant by "optical probe" and why it would

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exclude a generic light source. It is deemed that size would not be very relevant: an optical probe for medical purposes could be quite small, while an optical probe for a mine shaft could be at least the size of a standard light bulb.

Claims 29 and 33 are clearly met.

Claims 22-25, 28, 31-33 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kalman 5879571.

See figures 6A-6F, col. 3, lines 59-63, col. 5, lines 30 and 41, col. 7, lines 56-57. feature 10 is the mask, 115 is the optical material. Claims 23-24 are clearly met.

Claim 25: The term "optical probe" is not described or defined. IT is deemed that whatever source of light is used to provide the Kalman UV light can be considered to be an "optical probe". If Applicant disagrees, Applicant is require to point out what is meant by "optical probe" and/or why the claim would exclude a generic light source. It is deemed that size would not be very relevant: an optical probe for medical purposes could be quite small, while an optical probe for a mine shaft could be at least the size of a standard light bulb. Examiner can find no basis for holding that "optical probe" would exclude substantially any generic light source.

Claim 28 see figure 6B.

Claims 31-32 are clearly met as per the above cited relevant portions. Claim 33 is clearly met.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 25-28 rejected under 35 U.S.C. 103(a) as being unpatentable over Hogg.

Hogg discloses the invention as discussed above, but does not specifically mention the use of probe. Since light is launched through the fiber, it is inherent that there is a light source that is optically coupled to the far end of the fiber. It would have been able to use a movable/adjustable light source (i.e. a probe) so as to be able to adjust its location as needed. Adjustability is not a patentable invention

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From MPEP 2144.04

D. Making Adjustable

In re Stevens , 212 F.2d 197, 101 USPQ 284 (CCPA 1954) (Claims were directed to a handle for a fishing rod wherein the handle has a longitudinally adjustable finger hook, and the hand grip of the handle connects with the body portion by means of a universal joint. The court held that adjustability, where needed, is not a patentable advance, and because there was an art-recognized need for adjustment in a fishing rod, the substitution of a universal joint for the single pivot of the prior art would have been obvious.).

Claim 26: the broadest reasonable definition for "above" is typically "in or to a higher place than". Looking at Applicant's figure 1, the probe 60 is only higher than some portions of the waveguide. Some portions of the probe are lower than some portions of the waveguide. Thus it is deemed that when interpreting claim 26 in light of the disclosure, the claim only require that there be only one portion of the probe that is higher than the total waveguide, and that part of the waveguide is "removed".

From MPEP 2144.04

C. Rearrangement of Parts

In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950) (Claims to a hydraulic power press which read on the prior art except with regard to the position of the starting switch were held unpatentable because shifting the position of the starting switch would not have modified the operation of the device.); In re Kuhle, 526 F.2d 553, 188 USPQ 7 (CCPA 1975) (the particular placement of a contact in a conductivity measuring device was held to be an obvious matter of design choice). However, "The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device." Ex parte Chicago Rawhide Mfg. Co., 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984).

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It is would have been obvious to have the probe at any location (above, below, left, right) relative to the waveguide. Further it would have been obvious to rearrange the fiber so that the parts (which inherently would include at least part of the cladding) are remove from one location to another. One would reasonably expect that one moves various features so that they do not interfere with other features, so that one does not accidentally harm them, or for any other reason one would move one thing to another location.

It is noted that it does not seem possible that applicant could demonstrate any criticality for the "above" limitation. It would seem that one would get identical results merely by flipping the whole apparatus/process upside-down.

Claim 27: it is noted that the term "probe region" is not used in the specification. Thus it is presumed that the specification does not describe or define the term. Therefore it is presumed to be reasonable that the term "probe region" at least can encompass any region in which the probe is. It is deemed that the three-dimensional space that is encompassed by the Hogg probe is a "probe region". One would not expect to have any cladding – thus it would have a cladding of 0 microns.

Claim 28: Examiner takes official notice that UV-sensitive photoresists are well known. It would have been obvious to use UV –sensitive photoresists, depending upon what is available, and the what wavelengths the fiber most readily carries.

Claim 30: Figure 13 of Hogg shows multiple short fiber segments with the dots on their ends. Examiner takes Official notice that it is conventional in the optical device art to make multiple items from the same stock item; specifically, it is conventional to make multiple short fiber devices, from one single long fiber; and to make them sequentially, and to separate them from the stock fiber by cutting them from the stock item/fiber. It would have been obvious to make the short Hogg fiber sections of a single longer fiber, because it would have been more economical to make multiple devices from one stock item, than to make multiple devices from multiple stock items. It would have been further obvious to leave the stock fiber in one location, i.e. not remove the stock fiber from its location, because there would be no reason to move it, and because it would take time to move it. One could save time and effort by not moving what does not need to be moved.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 26 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 26 is not very clear because it requires the region has something (a cladding) that isn't there. More importantly, if one could properly consider that the

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removed cladding is still part of the cladding, then the probe region is not "above" the waveguide – it would still be in the same place.

See Allen Eng'g Corp. V. Bartell Indus. Inc. 299 F.3d 1336, 1348, 63 USPQ2d 1769, 1775 (Fed. Cir. 2002) (quoting Personalized Media Communications, LLC v. Int'l Trade Comm'n, 161 F.3d 696, 705, 48 USPQ2d 1880, 1888 (Fed. Cir. 1998)) ("In determining whether the claim is sufficiently definite, we must analyze whether "one skilled in the art would understand the bounds of the claim when read in light of the specification.") See also, Exxon Research & Eng'g Co. v. United States, 265 F.3d 1371, 1375, 60 USPQ2d 1272, 1276 (Fed. Cir. 2001) (citation omitted) (patent claims must be "sufficiently precise to permit a potential competitor to determine whether or not he is infringing").

Presently, a potential competitor would not know whether he could avoid infringing by practicing a method substantially identical to applicant's invention, merely because he is using a probe region that is at the same level (i.e. not above) the waveguide. For example, by having a large portion of the fiber (spool) at a high elevation, and then removing it from that location – thus that upper cladding is partially removed.

Conclusion

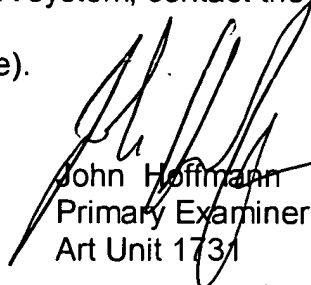
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wach (3), Emmons and Palmer are cited as being directed to disclosed but unclaimed aspects of the present invention.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John Hoffmann
Primary Examiner
Art Unit 1731

3-21-05

jmh